

100 Grove Street Worcester, MA 01605 T 508-856-0321 F 508-856-0357 gravesengineering.com

Date: Client: Project: August 24, 2015 Grafton Planning Board Brookmeadow Village

Contractor:
Contractor Contact:

P.W. Brown, Inc. Doug Brown Prepared By: Arrived on site:

Left site: Site Conditions: Weather: Jeffrey Walsh 2:25 PM 3:45 PM

Damp 75° Cloudy

		Transmitted by:	
☒	Mail	☐ E-mail	
	Hand	☐ Other:	
	Fax		

Comments:

GEI was on-site at the request of the Planning Board and the developer to meet with the contractor to view the Phase 1 and Phase 2 Roads (Brookmeadow Lane between Providence Road and Taft Mill Road and the entire length of Taft Mill Road) to identify work or repairs needed prior to top course asphalt paving. Doug Brown of P.W. Brown, Inc. was present during today's site visit. The roads were in satisfactory condition.

The following work is to be done:

- 1. Reconstruct the sidewalk wheelchair ramp on Brookmeadow Lane at the intersection of Taft Mill Road. The ramp currently aligns with a driveway opening on the opposite side of Brookmeadow Lane. Instead there needs to be a wheelchair ramp on both sides of the street; a driveway opening can't serve as a wheelchair ramp.
- 2. The roadway pavement cracks must be sealed/filled.
- 3. Asphalt on Taft Mill Road at the intersection of Brookmeadow Lane must be shimmed or cut/patched.
- 4. Any driveway asphalt that extends beyond the curb lines into the roads must be ground or saw-cut and removed in order to maintain the edge-of-curb line.
- 5. A paved apron is needed at the entrance to Basin #2 in order to create a stabilized curb line across basin's access driveway opening.
- 6. A tack coat of bitumen must be placed on the binder asphalt surface. A tack wagon with a prayer bar may be used. Bitumen coverage must be in accordance with MassDOT requirements.
- 7. Manhole frames, catch basin frames and water valve road boxes must be raised to finish grade.

Action to be Taken:

Grafton Planning Board will be notified of this site visit by way of this report.

CC: Grafton Engineering Department, Doug Brown, P.W. Brown, Inc., W. Greg Burrill, W.G.B. Construction

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PLANNING BOARD GRAFTON, MA

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100 Grove Street Worcester, MA 01605 T 508-856-0321 F 508-856-0357 gravesengineering.com

Date: Client: **Project: Contractor:**

Contractor Contact:

September 25, 2015 Grafton Planning Board Brookmeadow Village P.W. Brown, Inc.

Doug Brown

Prepared By: Arrived on site:

1:45 PM Left site: 2:25 PM **Site Conditions:** Drv

Weather:

70° P. Cloudy

Jeffrey Walsh

Transmitted by:		
⊠ Mail	☐ E-mail	
☐ Hand	☐ Other:	
☐ Fax		

Comments:

GEI was on-site at the request of the Planning Board and the developer to observe preparations for top course paving of the Phase 1 and Phase 2 Roads (Brookmeadow Lane between Providence Road and Taft Mill Road and the entire length of Taft Mill Road).

The following work was in progress:

- 1. Manhole frames and catchbasin frames were being raised to finish grade on Klondike Road at the intersection of Taft Mill Road. Structures along Brookmeadow Lane and Taft Mill Road had recently been raised to finish grade. Concrete collars were placed around the structures.
- 2. The wheelchair ramp on Brookmeadow Lane at the intersection of Taft Mill Road was being reconstructed. Concrete was being placed on the street-side of recently-installed sloped granite edging.
- 3. The roadway pavement cracks had been sealed with bitumen.

The work observed was satisfactory.

Action to be Taken:

Grafton Planning Board will be notified of this site visit by way of this report.



100 Grove Street Worcester, MA 01605 T 508-856-0321 F 508-856-0357 gravesengineering.com

Date: October 15, 2015
Client: Grafton Planning Board
Project: Brookmeadow Village
Contractor: P.W. Brown, Inc.

Arrived on site: Left site: Site Conditions:

Prepared By:

Jeffrey Walsh 11:45 AM 12:15 PM Dry

Contractor Contact:

Doug Brown

Weather: 70° P. Cloudy

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Mail	☐ E-mail
☐ Hand	☐ Other:
☐ Fax	

Comments:

GEI was on-site at the request of the Planning Board and the developer to observe sidewalk construction.

The contractor re-constructed the wheelchair ramp on the right (south) side of Brookmeadow Lane near the intersection of Taft Mill Road and had also constructed a reciprocal ramp on the opposite (north) side of Brookmeadow Lane. A section of sidewalk approximately 45 feet was reconstructed on the south side of the road and a section approximately 21 feet was reconstructed on the north side of the road. The sidewalks were four feet wide and were four to 4-1/2 inches thick. Control joints had been placed every 5+/- feet and expansion joints had been placed every 20+/- feet.

The contractor had also constructed concrete sidewalk along Taft Mill Road between station 27+80+/- and station 26+50+/-. The sidewalk was four feet wide and was four to 4-1/2 inches thick. Control joints had been placed every 5+/- feet and expansion joints had been placed every 20+/- feet. Concrete forms were being set along Taft Mill Road from station 23+70+/- to station 26+50+/-.

A drop inlet (part of the drainage system) was being installed at the intersection of Brookmeadow Lane and Klondike Road. The base section of the structure was set on a lift of 3/4" stone. Butyl sealant was used between the base section and the riser section.

The work appeared to be substantially consistent with the approved plans.

Action to be Taken:

Grafton Planning Board will be notified of this site visit by way of this report.



100 Grove Street Worcester, MA 01605 T 508-856-0321 F 508-856-0357 gravesengineering.com

Date: October 20, 2015
Client: Grafton Planning Board
Project: Brookmeadow Village
Contractor: P.W. Brown, Inc.

Brookmeadow Village
P.W. Brown, Inc.
Doug Brown

Aftived of
Left site:
Site Cond
Weather:

Prepared By: Jeffrey Walsh
Arrived on site: 12:15 PM
Left site: 12:35 PM
Site Conditions: Damp
Weather: 50° Cloudy

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☐ Fax		

Comments:

Contractor Contact:

GEI was on-site at the request of the Planning Board and the developer to observe sidewalk construction.

The contractor had constructed concrete sidewalk along Taft Mill Road between station 26+50+/- and station 23+70+/-. The sidewalk was four feet wide and was four to 4-1/2 inches thick. Control joints had been placed every 5+/- feet and expansion joints had been placed every 20+/- feet. The concrete forms had been removed; topsoil had not yet been placed along the sidewalk yet. Sidewalk construction has been completed along Taft Mill Road.

The contractor also had constructed concrete sidewalk along Klondike Road between station 12+80+/- (intersection of Taft Mill Road) and station 10+00+/-. The sidewalk was four feet wide and was four inches thick. Control joints had been placed every 5+/- feet and expansion joints had been placed every 20+/- feet.

Stakes had been set along Taft Mill Road to mark the locations where street trees are to be planted.

The work appeared to be substantially consistent with the approved plans.

Action to be Taken:

Grafton Planning Board will be notified of this site visit by way of this report.



100 Grove Street Worcester, MA 01605 T 508-856-0321 F 508-856-0357 gravesengineering.com

Date: November 5, 2015
Client: Grafton Planning Board
Project: Brookmeadow Village
Contractor: P.W. Brown, Inc.

Arrived on site: Left site: Site Conditions:

Prepared By:

Jeffrey Walsh 1:00 PM 2:35 PM Damp

Contractor Contact:

Doug Brown

Weather: 60° Cloudy, windy

	Transmitted by:	
⊠ Mail	☐ E-mail	
☐ Hand	☐ Other:	
☐ Fax		

Comments:

GEI was on-site at the request of the Planning Board and the contractor to view the stormwater basins and drainage infrastructure to observe their condition and identify in general terms further work to be performed in advance of the developer's request for construction completeness review. I met with Joe White of P.W. Brown, Inc. and viewed the four stormwater basins with him.

The basins had been constructed and stabilized with vegetative cover early during construction of the subdivision streets. In general, vegetation at the stormwater basins consisted of grass cover, but in many areas the grass had been overrun with brush and also contained numerous tree saplings. The brush and trees need to be mowed and the cuttings removed. Mowing needs to occur on the interior slopes, the tops of the basins and on the exterior fill slopes.

Any accumulated sediment found at the inlets to the basins will need to be removed and the disturbed areas re-stabilized. Of particular concern was Basin #1, located near the intersection of Brookmeadow Lane and Taft Mill Road. A diversion manhole is located in the drainage system near the basin's inlet. During low flows stormwater is supposed to flow to the forebay and during higher flows any excess water is to bypass the forebay and flow directly to the main basin. The forebay of Basin #1 contained a significant amount of accumulated sediment to the point that the inlet pipe was barely visible. The forebay and inlet pipe must be cleared of sediment. There was also an accumulation of sediment at the inlet to the main basin from the diversion manhole. This accumulated sediment must also be removed and the disturbed area re-stabilized.

Some erosion of the access road gravel was noted along the edge of the access road to Basin #1. The contractor was advised of our concern for what may be the need for periodic re-grading of any eroded area(s). Potential solutions (e.g. alternative or supplemental surface cover) will be considered by the developer and the contractor.

Fences have not yet been installed at the stormwater basins. The contractor plans to install the fences after work is completed at the basins.

We also viewed a couple of catch basin inlets and discussed what was expected at catch basins – openings wide enough to accommodate catch basin cleaning clams, clear openings below the granite inlet stone throats, secure leveling bricks and mortar. The catch basins viewed appeared to be in satisfactory condition but each catch basin will be checked during construction completeness review. Drain manholes are to have invert channels, ladders and secure leveling bricks and mortar.

Action to be Taken:

Grafton Planning Board will be notified of this site visit by way of this report.



100 Grove Street Worcester, MA 01605 T 508-856-0321 F 508-856-0357 gravesengineering.com

Date:NeClient:GProject:BiContractor:P.Contractor Contact:De

November 25, 2015 Grafton Planning Board Brookmeadow Village P.W. Brown, Inc. Doug Brown

Prepared By: Arrived on site: Left site: Site Conditions:

Weather:

Jeffrey Walsh 12:55 PM 2:25 PM Damp 45° Clear

	Transmitted by:			
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	Fax			

Comments:

GEI was on-site at the request of the Planning Board and the developer to observe sidewalk construction. While on-site, I also had a discussion with the developer and the contractor relative to preparations for construction completeness review and the developer's desire to update the project's construction cost estimates in light of work executed since the estimates were last updated.

Sloped granite edging had recently been placed along the entire right (west) side of Klondike Road. Sloped granite edging had also been placed along the right side of Brookmeadow Lane and vertical granite curb had been installed at the western radius at the intersection of Brookmeadow Lane and Klondike Road. Sloped granite edging had also been placed on the left side of Klondike Road between station 9+50+/- and station 10+60+/-. Sloped granite edging is now present on the left side of Klondike Road from station 9+50+/- to station 12+80+/- (Taft Mill Road). Concrete had been placed on the street-side of the granite edging and curb at these locations.

The contractor was preparing the gravel base for sidewalk construction along Klondike Road between station 0+00 (Brookmeadow Lane) and station 10+00+/-. Gravel (1-1/2" minus) had been placed from station 10+00+/- to station 3+00+/-. Compaction and further gravel placement were still in progress. Frost blankets were being placed over the compacted gravel and will be used until after the concrete is placed.

Street trees were being planted along Taft Mill Road.

Brush mowing was in progress at Stormwater Basin #1.

The work appeared to be substantially consistent with the approved plans.

Action to be Taken:

Grafton Planning Board will be notified of this site visit by way of this report.

The mark was a sink



100 Grove Street Worcester, MA 01605 T 508-856-0321 F 508-856-0357 gravesengineering.com

Date: December 8, 2015 Prepared By: Jeffrey Walsh Client: Grafton Planning Board Arrived on site: 10:10 AM **Project:** Brookmeadow Village Left site: 10:25 AM Contractor: P.W. Brown, Inc. Site Conditions: Damp 40° Cloudy Weather: **Contractor Contact:** Doug Brown

		Transmitted by:	
×	Mail		E-mail
	Hand		Other:
	Fax		

Comments:

GEI was on-site at the request of the Planning Board and the developer to observe sidewalk construction.

The contractor had constructed concrete sidewalk along Klondike Road between station 10+00+/- and station 0+00 (intersection of Brookmeadow Lane). The sidewalk was four feet wide and was a minimum of four inches thick. Control joints had been placed every 5+/- feet and expansion joints had been placed every 20+/- feet.

The sloped granite edging along the right side of Klondike Road had been backed-up with three-inch minus gravel. Light pole bases had been installed. Topsoil is to be placed along the sidewalk by Friday (12/11/15).

The work appeared to be substantially consistent with the approved plans.

Action to be Taken:

Grafton Planning Board will be notified of this site visit by way of this report.

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